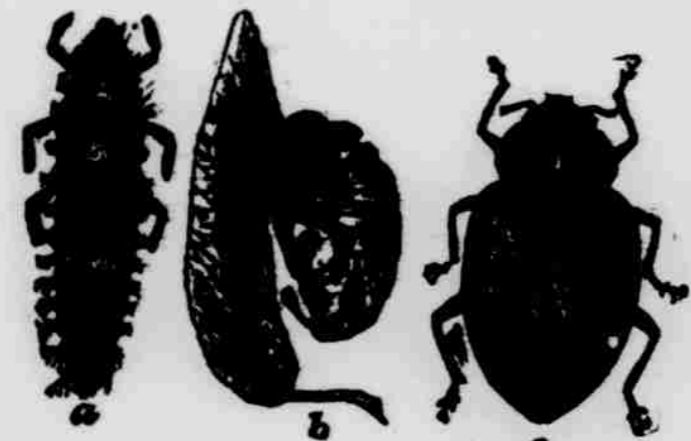


THE CLOVER LOUSE PLAYS HAVOC WITH FIELD PEAS AND CLOVER.

This Big, Green, Long-Legged, Plant Louse Has Ruined Millions of Dollars' Worth of Field Peas and a Great Deal of Red Clover—It is the Dominant Species of its Kind on These Plants and Can Scarcely Be Confused With Any Other Aphid.

By J. W. FOLSOM, Illinois.

This pest was, in all probability, introduced with clover and peas from Europe, where it is widely distributed and common. In the United States it has been injurious in Maine, Vermont, New Hampshire, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, the District of Columbia, Virginia, North Carolina, Ohio, Illinois, Michigan, Wisconsin, Minnesota, Nebraska, Iowa, Kentucky, and Texas. It has occurred in other states but not with such injurious results. In the eastern states the insect is chiefly a pest on



Ladybird—a, Larvae; b, Empty Pupal Skin; c, Beetle. One of the Most Efficient of the Insect Enemies of the Clover Louse.

peas. In the middle and western states it is a pest on clover.

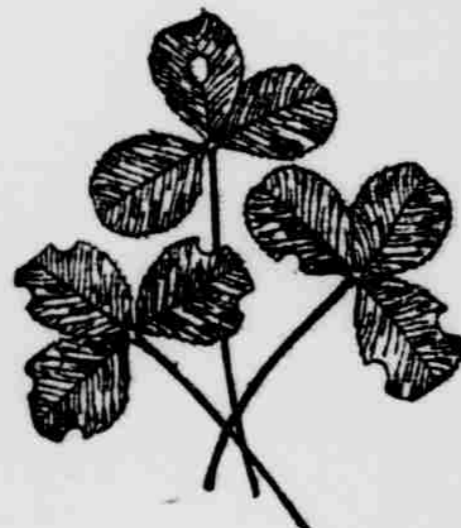
Under the name of "green dolphin" this aphid has long been known in Europe for its injuries to peas and vetches, and in minor measure to clovers and various weeds—some forty plants in all.

In America the aphid has done immense damage to peas and clovers. It affects especially leguminous plants, but numbers also among its food plants many weeds. The more important of its food plants are red clover, crimson clover, field pea, sweet pea, vetches (known also as "tares"), beets, lettuce, shepherd's purse, and nettle and other weeds. Alfalfa seems to be immune from attack. Thirty sweeps of the net in red clover yielded 3,000 of the aphids, while the same number of similar sweeps in an adjoining field of alfalfa gave only 30. On soy beans growing next to heavily infested clover, not a single louse was found.

Where peas are grown, the aphid winters in a field of clover or on weeds (as a wingless female or as an egg), and in spring is confined to these until the peas start to grow, and then it does not get to the early varieties, though it devastates the late-sown peas. The first aphids select the youngest leaves and shoots, but eventually the lice cover the entire plant and sap out its life, rendering it unfit even for fodder.

Several years ago, in Wisconsin, the louse was noticed in a five-hundred acre field of peas about July 20; in less than a week all the plants were dead and brown. In Maryland the louse destroyed peas valued at \$3,000,000 in one year.

On red clover, the youngest leaves

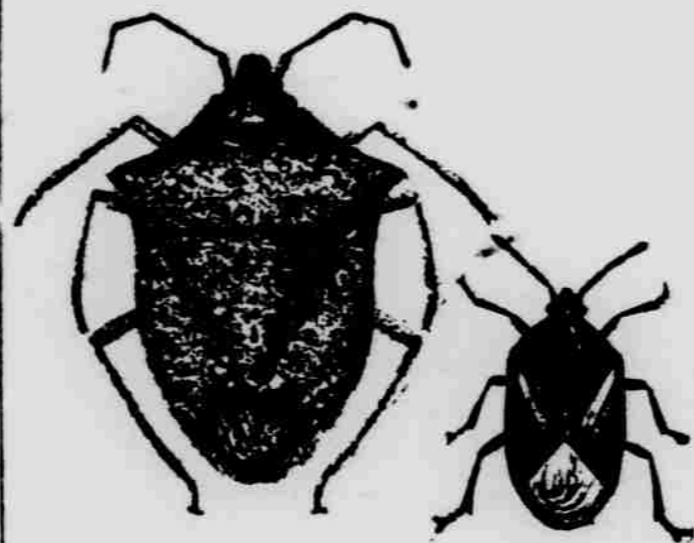


Leaves of Clover Showing Characteristic Injury by the Clover Curculio.

and stems are the first to be attacked, and these wither and die if many aphids are present. Wilted leaves mark the spread of the pest over the plant. Red clover, however, can stand a good deal of this injury, and if a heavy rain happens to occur when the plant is covered with the lice, they are washed off, and the field is safe for the rest of the season. There are also numerous insect enemies and a fungous disease which kill off immense numbers of the lice. At times a combination of circumstances occurs, under which the plant is killed, root and all. The natural checks upon the increase of the aphids may be insufficient; but dry weather seems to be the most important factor. Without rain the plant cannot replace the sap taken by the aphids, let alone make any growth. In dry weather the fungus cannot develop, and in the absence of heavy rains to wash them off the plants, the aphids thrive.

The most important enemy of this louse is a common fungous, *Empusa aphidis*. It is wide-spread in the United States and Canada, and affects a great variety of aphids. It does not appear in dry weather but is common after a rain or two at any time during the growing season, but is most

abundant under the combined influences of moisture and warmth. Then it sweeps off myriads of aphids. The clover louse is affected directly or indirectly by a large number of



Enemies of the Clover Louse.

insects, about thirty-three in all. The most important of these appears to be the ladybird beetle. The larvae of this insect destroy immense numbers of these aphids.

HAIR FLIES AT ORPHANAGE

500 Heads Trimmed by 50 Do-a-Good-Deed Barbers.

Philadelphia Public Ledger.

The hair flew at St. John's Orphanage, Forty-ninth street and Wyalusing avenue. Fifty union barbers were cutting the hair on 500 little heads. It was the first of a series of Sunday visits the barbers contemplate making to charitable institutions in the city.

The roof of the orphanage building was the scene of the wholesale clipping. Fifty chairs were occupied most of the afternoon. The 50 barbers cut ten heads each. The style produced in every case was the "feather-edge", which means to remove all of the hair save enough in front to permit the boy to comb it.

Some time ago members of the Journeymen Barbers' Union decided that they should devote some part of their day off, which is Sunday, to some good purpose. One of them suggested the idea of donating a haircut to the orphans and invalids in local institutions. It was approved unanimously.

There seemed to be some doubt, however, that the institutions would permit such operations on Sunday, and it was not until the last moment that the barbers were allowed to carry out their plan at the orphanage. But as one of the sisters at the institution said, "I suppose God will approve kindness of heart, whether it be expressed on Sunday or any other day."

WHEN TO CUT ALFALFA.

For all classes of animals except horses, alfalfa should be cut for hay when the new shoots or stems begin to appear at the crown. These are easily seen just as they come up among the old stems at about the beginning of blossoming time. Cutting earlier than this is not desirable or profitable, since the yield will be smaller and the hay will be more difficult to cure. It should not be allowed to get much beyond this stage for two reasons: (1) Although a somewhat heavier first cutting of hay can be secured by allowing it to stand longer than the time recommended, the hay is neither as palatable, nor as nutritious. (2) Leaving the first crop after it is at the proper stage to cut delays and reduces the second crop, since the new shoots coming from the crown are cut off with the first crop. When alfalfa is to be fed to horses, it may be allowed to grow slightly longer than when it is to be fed to cattle, but it should never be left until the second crop is injured in cutting the first crop.—A. C. Army.

FOR THE FARMER'S WIFE

To Eradicate Stains.

Acid—Use ammonia or chloroform.
Blood—Soak when fresh in cold water.
Chocolate—Soak in kerosene and wash in cold water.
Coffee—Treat with boiling water when fresh.
Fruit—Soak fresh stains in milk or use oxalic acid.
Grass—Rub the spot with molasses and wash.
Grease—Rub French chalk or fuller's earth on the spots.
Ink—Use salt and lemon juice.
Iron rust—Use lemon and salt or hot solution of oxalic acid.
Mildew—Use lemon and salt or Javelle water.
Mud—Soak in kerosene.
Paint—Use turpentine or benzine.
Perspiration—Nothing but boiling will remove.
Scorch—Wet and expose to sun-dry.
Tar—Soak in warm milk and salt.
Tea—Use boiling water.
Wine—Put dry salt on fresh stains, warm milk on old ones.
Mildew is obstinate and difficult to remove. If lemon and salt or Javelle water do not remove it nothing will.

The history of American farming, except in some of the older sections, is a record of profligate waste of natural resources and soil fertility, and it is being repeated on an extensive scale on the plains of western Canada.

THE BROOD MARE ON THE FARM

The Farm Horse Fills a More Important Place in Production Than Any Other Animal.

When the active working season on the farm will have a little let up, the farmer can have a moment to spare to ascertain of what value his brood mares have been.

He will remember, in the first place, that they have each given birth this season and have raised to weaning age a nice promising colt that bids fair to develop into a good salable horse later on.

These youngsters are increasing in value and as they are yearlings now will help to make their living next season as two year olds. The brood mares have also done much farm and road work.

Probably I make a mistake in crediting each mare with a colt every year; so it is safer to say that counting for accidents a mare should average two colts every three years.

It would be rather a hard matter to say just what product she will give her owner each year of her working and breeding life. So much depends on her quality and especially upon her capacity as a sure breeder and likewise as a good mother.

Mares, like cows, differ greatly in their flow of milk and many times a medium-sized animal with heavy milk flow capacity will raise a bigger and better colt than a much larger animal whose milk flow is insufficient.

The practical horse breeder and the farmer or experienter is well aware of these facts and one will often be surprised to see farmers keep breeding mares that to the uninitiated appear to be indifferent specimens.

Say that a farmer has bought a mare in January for \$150. She is five years old and he breeds her in March. The stud fee is \$25, but the money is not due unless the mare proves to be in foal.

The colt has cost \$25 at birth and at weaning time, four months later, he should be worth, if a good individual and a good grade, say \$40.

By next spring he should be worth \$75 and at two years old should bring \$100 to \$125. Now he can be put to work.

From then until he is four years old he should earn his feed—say \$75 a year—and give a profit of \$25 per year, although \$50 would be nearer the mark.

At four years of age he should be worth \$200, judging from the way well-bred, well-broken and well-kept horses are now selling.

We will say that a breeder is lucky enough to have raised a pair of four-year-olds, sound, good lookers, hearty, with snap and style, weighing from 1200 to 1400 pounds each, for the pair \$400 can easily be had in any of the big markets.

These are not fanciful figures but are based upon actual experience of every-day farmers of breeding, raising and selling colts.

Every farmer should, if possible, keep one or more good brood mares; not broken winded, worn out, city hacks but sound, well-shaped, well-bred animals that possess individual merit and whose progeny will sell readily when the dealer comes along.

Any breeder of experience, knows well that almost as much depends on the brood-mare as on the stallion in the raising of any breed of good horses.

Many colts take their conformation from their mother, especially from their shoulders back. For instance, if a mare has wide, ragged hips, her colts are most liable to inherit this tendency. Many colts also inherit their dispositions from their dams.

Brood-mares should be sound, of quiet disposition, strongly built, and they should be well cared for.

It is a severe loss to the farmer who pays \$25 stud fee, loses two or three months' work of his mare, and then loses a colt at birth, or afterwards, and all from neglect of some sort.

The mare can be worked up to a week or two before the colt is dropped. In fact, she is better off for the regular exercise, but she should be handled by a careful man, who will not excite her, and she should have a roomy box stall for her sleeping quarters.

Although many may disagree with me, I am firmly convinced from nearly thirty years' experience on breeding farms, that it is a risky business purchasing aged mares, who have spent the best years of their life doing work in the cities, and trying to make broodmares of them.

Even if they are only eight or ten years old, it is an expensive experiment. The reason is obvious.

In the first place when a mare has arrived at that age, and has never had a colt, her chances of getting in foal are lessened each year.

Furthermore, it is safe to say that a reasonable proportion of these mares have slunked their colts, and for this reason they have been sent from the farms and sold in the cities, where they can do excellent work.

In choosing brood-mares, always buy young ones, say from three to five years old, then you should be able to count on all of them getting in foal, or certainly nearly every one, when, if you pick up a lot of "second hand" mares, of uncertain age, your percentage of colts will be extremely uncertain.

One good, sound young mare,

bought from some reliable farmer or breeder, is worth more for breeding purposes than half a dozen "second hand" bargains picked up in the market.

THE OLD-FASHIONED GARDEN.

(By B. PUTNAM.)

Who does not remember a garden of old feelings the pink, blue and white larkspurs which came up year after year, asking only that the weeds be kept down.

Some of us may still have a sketch of the pressed spurs in an old school book, made by one of whom we have long since lost track.

Then there were the king of the almost as blue as the larkspurs and with hooded flowers. The catalogues list them as *Aconitum*, or monkshood; and the perennial, now rarely seen, is worthy of perpetuation.

There is no more favorable time for establishing some of these treasures, heirlooms of the floral world, and if they are to come from seed the larkspurs and hollyhocks and aquilegas are sure to bloom next year from this autumn-sown seed.

With a background of shadblow the hollyhocks is admirable, and it is still as ornamental as a hedge plant, as the long row in front of the garden fence is in memory.

The double varieties are like great roses, of a silken texture. The bees delight to cluster about the blossoms, too.

The colors vary in the improved sorts from clear white and yellow through the various shades of pink, salmon and red to dark maroon.

The aquilegia or columbine is easily raised from seed. The colors are good, it is hardy and free from insects. It is also an early bloomer, being at its best as the spring bulbs are waning and before the advent of the annuals.

The deep purple, white and pink will be remembered as of the old garden, though a yellow variety from Colorado now ranks among the largest and most beautiful of the species. The native Columbine of the east, *Cadnaense* also readily adapts itself to cultivation, the blending of honey yellow and coral red being an unusual and artistic combination.

Sow seeds in autumn, and they will blossom the next spring. The plants are easily transplanted, and are especially fine when grown next to shrubbery.

There is still nothing more brilliant than the old-fashioned "silk poppies" in solid colors or white-edged. They seed freely and come up from year to year from this self-sown seed. Consequently a garden of poppies is practically self-sustaining.

Though so fragile that they may well be termed the butterflies of the floral realm, they are quite as beautiful as the handsomest of the winged creatures.

There are so many varieties that one can scarcely make a mistake in the selection; and for a brilliant display with little work, they are certainly to be recommended.

The French marigolds, with delicately-cut leaves and flowers of a rich golden-brown color and velvety texture, compare favorably with any of the modern importations, and are just now general favorites.

Perhaps nothing comes back with a more vivid childish remembrance than the "golden buttons," the shining petals of which were, before the crocus and snowdrop were common, among the first spring flowers. Those desiring to renew the old acquaintance will find it listed as *Ranunculus repens*, double variety.

As proof of their work, one has but to traverse some of the by-places, where the old-fashioned garden is still intact and prove that this is one of the loved things of childhood well worthy of our affection.

DOCTOR GIVES BLOOD IN VAIN

Philadelphia Band Leader Dies in Spite of 20 Ounces of Transfused Fluid.

Philadelphia dispatch N. Y. World.

Though Dr. R. Franklin Hill, an interne at the Hahnemann Hospital, gave twenty ounces of his blood to C. Stanley Mackey, leader of the Philadelphia Band and member of the Philadelphia Orchestra, it failed to save the musician's life.

Mr. Mackey underwent an operation at the hospital a week ago, after which blood poisoning developed. It was decided that only a blood transfusion could save his life. There was no time to advertise for a donor to sacrifice two quarts of his blood and Dr. Hill volunteered. Immediately after the operation Mackey showed improvement, but he had another relapse. Dr. C. A. Bixler, also connected with the hospital, offered to undergo the transfusion operation, but before arrangements could be completed Mr. Mackey died.

RURAL MAIL CARRIERS

FOREST FIRE WATCHES

A. S. Burleson, postmaster general, has made the rural mail carriers assistants to the national and state forestry officers with the special duty of reporting forest fires. The glare of an incipient blaze, or the odor of wood smoke on the breeze will be the signal for the carriers to hasten to the nearest telephone to sound the alarm.

Dead beets—those killed by weeds and lack of attention.